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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,375	07/28/2003	Fang Hao	Hao 1-2-4 (LCNT/125103)	6538

46363 7590 04/30/2007	EXAMINER	
PATTERSON & SHERIDAN, LLP/ LUCENT TECHNOLOGIES, INC 595 SHREWSBURY AVENUE SHREWSBURY, NJ 07702	WILSON, ROBERT W	

ART UNIT	PAPER NUMBER
2616	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/629,375	HAO ET AL.
	Examiner	Art Unit	
	Robert W. Wilson	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 July 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-29* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-29* is/are rejected.

7)☐ Claim(s) ___ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

Claim Rejections - 35 USC § 112

1.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2.   Claim 9 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Referring to claim 9, where in the specification does the applicant specify that a route previously considered as a transient is considered as stable if the route is not updated within a predetermined time period"?

Claim Rejections - 35 USC § 112

3.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4.   Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing

to particularly point out and distinctly claim the subject matter which applicant regards as the

invention.

Referring to claim 9, what is meant by " a route previously considered as a transient is considered as stable if the route is not updated within a predetermined time period"? The meaning of this limitation is confusing and unclear.

Claim Objections

5.   Claims 15-23 are objected to because of the following informalities:

Referring to claims 15, 16, 19, 20, & 23; the examiner objects to the usage of "adapted to" because "adapted to" can be interpreted as an optional or intended use which means that the limitation is not binding. The examiner recommends that the applicant either amend or clarify whether "adapted to" is a real requirement or an intended use. Appropriate correction is required.

6.   Claims 16-18, 20-22, & 27-29 are objected to because of the following informalities:

Referring to claims 16-18; claims 15 & 19 are directed to an apparatus which is transmitting reason information. Claims 16-18 & 20-22 are directed to an apparatus which is receiving reasoned information. The same apparatus does not transmit and receive the same reason information associated with itself; consequently, the examiner objects to the inconsistent usage of "reasoned information" and request that the applicant amend the claim to clarify. Appropriate correction is required.

Referring to claims 27-29; claim 26 is directed to a computer readable medium which stores instructions for transmitting reason information. Claims 27-29 which has a computer readable medium which are directed to an apparatus which is receiving reasoned information. The same apparatus does not transmit and receive the same reason information associated with itself; consequently, the examiner objects to the inconsistent usage of "reasoned information" and alos because the instructions are in different devices they are different instructions. The examiner requests that the applicant amend the claim to clarify. Appropriate correction is required.

Claim Rejections - 35 USC § 102

7.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8.   Claims 1-8, 10-29 are rejected under 35 U.S.C. 102(E) as being anticipated by Chen (U.S. Patent No.: 6,567,380) and RFC 1771 as extrinsic evidence which is incorporated by reference per col. 5 line 59 to 61.

Referring to claim 1, Chen & RFC 171 teach: a method for improved inter-domain routing convergence (Router per Fig 3 performs the method utilizing the message formats per Figs 5 & 6

of Chen) comprising: transmitting reason information associated with a route update or withdraw (Router per Fig 3 transmits message formats which are both router update and withdraw per Chen which the combination of local prefer per RFC 171 per Pg 36, path attributes per Fig 5 of Chen and hop count (cost) per pg 38 per RFC 171 or reason information)

In addition Chen & RFC 171 teach:

Regarding claim 2, wherein said reason information transmitted along with said route update or withdraw (the combination of local prefer per RFC 171 per Pg 36, path attributes per Fig 5 of Chen and hop count (cost) per pg 38 per RFC 171 or reason information is transmitted along with Withdraw (504 per Fig 5 of Chen)

Regarding claim 3, wherein said reason information is encoded as a triplet within a route update or withdraw message (the combination of local prefer per RFC 171 per Pg 36, path attributes per Fig 5 of Chen and hop count (cost) per pg 38 per RFC 171 are a triplet)

Regarding claim 4, wherein the triplet comprises;

A type code identifying the reason for the update or withdraw (local preference per RFC 171 per Pg 36 is a type code)
An indication of the a node pair associated with the update or withdraw (withdraw routes indicates an inherent pair of nodes per Fig 5 of Chen)
An updated cost of a link between the node pair associated with the update or withdraw (hop count per Pg 38 of RFC 171 indicates the cost of the link)

Regarding claim 5, wherein said reason information comprises reason selected from the group consisting of lost of peering between nodes and a change in the cost of a link between nodes (local preference per RFC 136 per Pg 36 would result from a loss of peering and hop count per Pg 38 of FC 171 (cost))

Regarding claim 6, wherein a node receiving said reason information uses said reason information to determine which of its candidate route are also affected by substantially the same even that triggered the initial route update or withdrawn and which of it candidate router are not affected (after receiving the routing update message the receiving route assess the routes in its routing table and based upon the local preference or best route as well as the other information determines which routes the table are affected per col. 6 line 50 to col. 8 line 25 of Chen)

Regarding claim 7, wherein a candidate route is considered as a transient route if said receive node determined from said reason information that the candidate route is to be updated or withdrawn (Upon receipt of the routing message the receiving router determines the candidate route is to be updated or withdrawn per col. col. 5 line 40 to col. 8 line 17 of Chen)

Regarding claim 8, wherein said receiving node avoids advertising a candidate route considered as a transient route as a preferred route to its neighbors (The receiving router receives a MED

value which is used to as part of the assessment in determining of a local preference per col. 6 line 1 to 67 of Chen)

Regarding claim 10, further comprising transmitting version information for the route update or withdraw (Version Pg 8 of RFC 171)

Regarding claim 11, wherein the version information comprises a version of the update or withdraw for each node pair and the change in node pairs form the route previously advertised (Version per Pg 8 of RFC 171 applies to all update messages)

Regarding claim 12, wherein a node receiving said version information uses said version information to determine the stability of its candidate router (Chen per col. 6 lines 10 to col. 8 line 9)

Regarding claim 13, wherein a candidate route is considered as a transient route if a reason's version is greater than the version corresponding node pair in a path of the candidate route being considered (Chen per col. 6 lines 10 to col. 8 line 9)

Regarding claim 14 wherein said receiving node avoids advertising a candidate route considers as transient route as a preferred route to its neighbors (Chen per col. 5 line 40 to col. 8 line 9)

Referring to claim 15, Chen & RFC 171 teach: a apparatus for improved inter-domain routing convergence (Transmitting Router & receiving router per Fig 1 which are shown individually per Fig 3 or apparatus of Chen) comprising:

Processor (302 per Fig 3 of Chen) and

a memory (304 per Fig 3 or Chen) said apparatus adapted

transmit reasoned information associated with a route update or withdraw to neighboring apparatus (Router per Fig 3 of Chen transmits message formats which are both router update and withdraw per Chen which the combination of local prefer per RFC 171 per Pg 36, path attributes per Fig 5 of Chen and hop count (cost) per pg 38 per RFC 171 or reason information) are sent to neighbors apparatus per Fig 1 of Chen

In addition Chen & RFC 171 teach:

Regarding claim 16, further adapted to perform the steps of receiving a reason information associated with a received update or withdraw (Router per Fig 3 receive message formats which are both router update and withdraw per Chen which the combination of local prefer per RFC 171 per Pg 36, path attributes per Fig 5 of Chen and hop count (cost) per pg 38 per RFC 171 or reason information) and using said received reason information to determine which of its candidate routes are also affected by substantially the same event that triggered an initial route update or withdrawn and which of its candidate route are not affected (The receiving router uses

the combination of local prefer per RFC 171 per Pg 36, path attributes per Fig 5 of Chen and hop count (cost) per pg 38 per RFC 171 or reason information which was received due to a triggered event as well as other updates such as flags per Fig 5 of Chen or substantially the same event to determine what route candidates are updated in its table and which router are not updated in its tables per col. 5 line 51 to col. 8 line 9)

Regarding claim 17, wherein said candidate route is considered as a transient route if said apparatus determined from said received reason information that said candidate route is to be updated or withdrawn (The receiving router evaluates with routes have been updated or withdrawn a labels the routes in the table with a TA (transient attribute) transient indicator per Fig 9)

Regarding claim 18, wherein the apparatus avoids advertising a candidate route considered as a transient route as a preferred route to its neighbors (The router takes into account the Transient Attribute when making a decision on local preference)

Regarding claim 19, further comprising transmitting version information for the route update or withdraw (Version Pg 8 of RFC 171)

Regarding claim 20, further adapted to perform the step of: receiving version information; with an update or withdraw and using said received version information to determine the stability of its candidate routers (RFC 1771 teaches receiving version number and Chen teaches determining stability based on version per col. 6 lines 10 to col. 8 line 9)

Regarding claim 21, wherein a candidate route is considered as a transient route if said apparatus determined from said received version information that the reasons's version is greater than the version of a corresponding node pair in a path of the candidate route being considered (Chen version processing per col. 6 lines 10 to col. 8 line 9)

Regarding claim 22, wherein said apparatus avoids advertising a candidate router considered as a transient route as a preferred route to its neighbors (Chen transient route processing per col. 5 line 40 to col. 8 line 9)

Referring to claim 23, Chen & RFC 171 teach: a communication network having improved interdomain routing convergence (Fig 1 per Chen or network) comprising a plurality of network devices (Fig 1 of Chen has a plurality of routers or network devices) each of said network devices comprising a processor and a memory (Each of the routers per Fig 1 are represent by Fig 3 which has a processor and a memory)

Transmiting reasoned information associated with a route update or withdraw to neighboring apparatus (Router per Fig 3 of Chen transmits message formats which are both router update and withdraw per Chen which the combination of local prefer per RFC 171 per Pg 36, path attributes per Fig 5 of Chen and hop count (cost) per pg 38 per RFC 171 or reason information) are sent to neighbors apparatus per Fig 1 of Chen

receiving a reason information associated with a received update or withdraw (Router per Fig 3 receive message formats which are both router update and withdraw per Chen which the combination of local prefer per RFC 171 per Pg 36, path attributes per Fig 5 of Chen and hop count (cost) per pg 38 per RFC 171 or reason information) and

using said received reason information to determine which of its candidate routes are also affected by substantially the same event that triggered an initial route update or withdrawn and which of its candidate route are not affected (The receiving router uses the combination of local prefer per RFC 171 per Pg 36, path attributes per Fig 5 of Chen and hop count (cost) per pg 38 per RFC 171 or reason information which was received due to a triggered event as well as other updates such as flags per Fig 5 of Chen or substantially the same event to determine what route candidates are updated in its table and which router are not updated in its tables per col. 5 line 51 to col. 8 line 9)

Regarding claim 24, wherein a candidate route is considered as a transient route if said apparatus determined from said received reason information that said candidate route is to be updated or withdrawn (The receiving router evaluates with routes have been updated or withdrawn a labels the routes in the table with a TA (transient attribute) transient indicator per Fig 9)

Regarding claim 25, wherein the said network devices avoid advertising a candidate route considered as a transient route as a preferred route to its neighbors (The router takes into account the Transient Attribute when making a decision on local preference)

Referring to claim 26, Chen & RFC 171 teach: computer readable medium for storing a set of instructions (Memory per Fig 3 and per col. 4 line 43 to col. 5 line 4 of Chen) wherein said instructions are executed on a processor (Processor per Fig 3 and per col. 4 line 43 to col. 5 line 4 of Chen)

receiving a reason information associated with a received update or withdraw (Router per Fig 3 receive message formats which are both router update and withdraw per Chen which the combination of local prefer per RFC 171 per Pg 36, path attributes per Fig 5 of Chen and hop count (cost) per pg 38 per RFC 171 or reason information) and

Regarding claim 27, wherein the method further comprises: receiving reason information to determine which of its candidate routes are also affected by substantially the same event that triggered an initial route update or withdrawn and which of its candidate route are not affected (The receiving router uses the combination of local prefer per RFC 171 per Pg 36, path attributes per Fig 5 of Chen and hop count (cost) per pg 38 per RFC 171 or reason information which was received due to a triggered event as well as other updates such as flags per Fig 5 of Chen or substantially the same event to determine what route candidates are updated in its table and which router are not updated in its tables per col. 5 line 51 to col. 8 line 9)

Regarding claim 28, wherein a candidate route is considered as a transient route if said apparatus determined from said received reason information that said candidate route is to be updated or withdrawn (The receiving router evaluates with routes have been updated or withdrawn a labels the routes in the table with a TA (transient attribute) transient indicator per Fig 9)

Regarding claim 29, wherein the said network devices avoid advertising a candidate route considered as a transient route as a preferred route to its neighbors (The router takes into account the Transient Attribute when making a decision on local preference)

Conclusion

9.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Robert W. Wilson whose telephone number is 571/272-3075.

The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Huy D. VU can be reached on 571/272-73155. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Robert W Wilson
Examiner
Art Unit 2616

RWW
4/26/07